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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/729,867	12/04/2000	Alexander J. Hartmann	042390.P10326	6801

7590 09/28/2005

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EXAMINER

BALI, VIKKRAM

ART UNIT	PAPER NUMBER
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2623

DATE MAILED: 09/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/729,867

Applicant(s)

HARTMANN ET AL.

Examiner

Vikkram Bali

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 May 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) See Continuation Sheet is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-8,10-12,14,15,18,20-22,24,25,30,31,33,34,37,38,40,41,43-46,48,49,51,52,55,56,58 and 60-62.

is/are rejected.

- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Continuation of Disposition of Claims: Claims pending in the application are 1,3-8,10-12,14,15,18,20-22,24,25,30,31,33,34,37,38,40,41,43-46,48,49,51,52,55,56,58 and 60-62.

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DETAILED ACTION

In response to the amendment filled on 5/6/2005, all the amendments have been entered and the action follows:

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1, 14, 18, 21, 33, 43, 45, 51 and 58 and their dependent claims are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The limitation of "aggregating the difference between the first image and the second image into a noise feature vector" is not described in the specification in such a way as to enable one skilled in the art to which it pertains.

Claim Rejections - 35 USC § 101

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 21, 24, 30, 45, 48, 51, and 55 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claims are claiming "software means" which is non-statutory subject matter.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Distinguishing photographs and graphics on the world wide web, by Athitsos, IEEE 1997 in view of Zhang et al (US 5491627).

With respect to claim 1 (as best understood), Athitsos discloses a photograph and graphic distinguishing method that train a model using the different values of the

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images (see page 11, col. 1, lines 2-9, lines 13-19, col. 2, lines 4-8, the photographs and graphics are read as natural and artificial or slide and comic images), the training is done per the color and the amount of noise (see page 11 col. 2 first paragraph) as claimed. Furthermore, Athitsos also discloses the feature vector as the edge feature of the image, (see page 12 section 4 image metrics, and page 11 column 2, last paragraph, wherein the edge contours between the regions are considered as the distinctions in the images) as claimed in the other independent claims. However, he fails to disclose generating of noise reduced third image by subtraction of two images, as claimed. Zhang teaches the generating of noise reduced third image by subtraction of two images, (see figure 18 and col. 5, lines 9-20) as claimed.

Therefore, it would have been obvious to one ordinary skilled in the art at the time of invention to simply combine the two references as they are analogous because they are solving similar problem of image classification. The teaching of Zhang can be incorporated in to the Athitsos's system of image classification in order to reduce the number of false positive detections while preserving all the true positive detections (see col. 2, lines 28-30 of Zhang).

With respect to claims 3-5 as best understood, the median filter, the gaussian filter and the Wiener filter is well known in order to reduce the noise in the signal.

With respect to claim 6, Zhang further teaches the video stream of data, (the mammograms are video signal) as claimed.

Claims 7-8, 10-12, 14-15, 18, 20-22, 24-25, 30-31, 33-34, 37-38, 40-41, 43-46, 48-49, 51-52, 55-56, 58, and 60-62 are rejected for the same reasons as set forth in the rejection of claims 1-6, because claims 7-8, 10-12, 14-15, 18, 20-22, 24-25, 30-31, 33-34, 37-38, 40-41, 43-46, 48-49, 51-52, 55-56, 58, and 60-62 are claims similar subject matter as claimed in claims 1-6.

Response to Arguments

4. Applicant's arguments filed 5/6/2005 have been fully considered but they are not persuasive. Applicant argues that the references fail to disclose "generating a noise reduced second image from the first image" and "aggregating the difference between the first image and the second image into a noise feature vector" (see paragraph connecting pages 15 and 16). Please note the rejection under 35 USCC 112 above regarding the limitations added to the claim. And, Zhang teaches the generating of noise reduced third image by subtraction of two images, (see figure 18 and col. 5, lines 9-20).

Applicant argues that the reference fails to disclose distinguishing a slide image from a comic image as claimed (see first two lines of page 18). Examiner disagrees and would like to point out that the limitations are given their broadest reasonable interpretations. The reference of Athitsos, distinguishes photographs and graphics, depending upon the

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color of the images (see page 11 col. 2 last two paragraphs), the distinguishing of a photographs and graphics is read as distinguishing from slide from a comic.

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

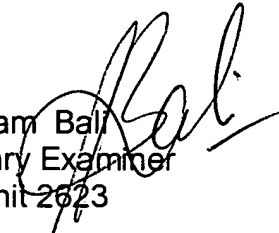
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vikkram Bali whose telephone number is 571.272.7415. The examiner can normally be reached on 7:00 AM - 3:30 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amelia Au can be reached on 571.272.7414. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Vikkram Bal
Primary Examiner
Art Unit 2623

vb
September 22, 2005